Sodium Nitrite: Crystal Reagent ACS, High Purity Flake, High Purity Granular, High Purity Special Granular, Granular Free-Flowing Food Grade, Granular Free-Flowing Technical Grade

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 05/05/15 Date of Issue: 05/05/15 Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Sodium Nitrite: Crystal Reagent ACS, High Purity Flake, High Purity Granular, High Purity Special Granular, Granular Free-Flowing Food Grade, Granular Free-Flowing Technical Grade

Other Generic Name: Nitrous Acid, Sodium Salt

Intended Use of the Product

Curing salt formulations. Chemical and dye source of nitrous acid. Corrosion inhibitor in antifreeze, paints, oil tanks and pipelines. Oxidizing agent and depolarizer in detinning. Phosphate coatings. Gold plating baths. Heat transfer salt. Polymer inhibitor for synthetic rubber. Nitrous acid source for accelerators, retarders and antioxidants / antiozonants. Foam rubber blowing agent. Wastewater treatment odor control and bacteria activity inhibitor.

Name, Address, and Telephone of the Responsible Party

Manufacturer

Global Chemical Resources
1925 Nebraska Avenue
Toledo, OH 43607
(419) 242-1004

Emergency Telephone Number

Emergency Number : Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300
Chemtrade Emergency Contact: (866) 416-4404
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Ox. Sol. 2	H272
Acute Tox. 3 (Oral)	H301
Eye Irrit. 2A	H319
Aquatic Acute 1	

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS03 GHS06 GHS07 GHS09

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H272 - May intensify fire; oxidizer
H301 - Toxic if swallowed
H319 - Causes serious eye irritation
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements (GHS-US) : P210 - Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P220 - Keep/Store away from combustible materials, clothing.
P221 - Take any precaution to avoid mixing with combustibles.

P264 - Wash hands, forearms and exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see Section 4).
P330 - Rinse mouth.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P370+P378 - In case of fire: Use appropriate media to extinguish.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Ingestion may cause methemoglobinemia. Initial manifestation of methemoglobinemia is cyanosis, characterized by navy lips, tongue and mucous membranes, with skin color being slate grey. Further manifestation is characterized by headache, weakness, dyspnea, dizziness, stupor, respiratory distress and death due to anoxia. If ingested, nitrates may be reduced to nitrites by bacteria in the digestive tract. Signs and symptoms of nitrite poisoning include methemoglobinemia, nausea, dizziness, increased heart rate, hypotension, fainting and, possibly shock.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Sodium nitrite	(CAS No) 7632-00-0	90 - 100	Ox. Sol. 2, H272 Acute Tox. 3 (Oral), H301 Eye Irrit. 2A, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Call a POISON CENTER or doctor/physician if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: Harmful if swallowed. Eye irritation. Ingestion may cause methemoglobinemia.

Inhalation: May cause respiratory irritation.

Skin Contact: May cause skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: Toxic if swallowed. Ingestion may cause methemoglobinemia.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray.

Unsuitable Extinguishing Media: Do not use any extinguishing agent other than water.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: May intensify fire; oxidizer. Will burn if exposed to heat, and in addition, will accelerate the burning of other combustibles, resulting in more rapid spread of fire.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: The mixture contains an oxidizer which reacts with combustibles and reducing agents.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: May intensify fire; oxidizer. Use water spray or fog for cooling exposed containers. Do not allow run-off from fire fighting to enter drains or water sources. Do not breathe fumes from fires or vapors from decompostion. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Nitrogen compounds.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Handle in accordance with good industrial hygiene and safety practice.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Eliminate ignition sources. Stop leak if safe to do so. Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Solid spill: Collect as any solid.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Hazardous waste due to potential risk of fire and explosion.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Ground and bond container and receiving equipment. Ensure all national/local regulations are observed. Keep cool. Protect from sunlight. Use explosion proof equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store away from oxidizers, combustible materials, and all ignition sources. Keep in fireproof place. Store in original container. Store locked up.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Reducing agents. Ammonium salts. Amines.

Specific End Use(s) Curing salt formulations. Chemical and dye source of nitrous acid. Corrosion inhibitor in antifreeze, paints, oil tanks and pipelines. Oxidizing agent and depolarizer in detinning. Phosphate coatings. Gold plating baths. Heat transfer salt. Polymer inhibitor for synthetic rubber. Nitrous acid source for accelerators, retarders and antioxidants / antiozonants. Foam rubber blowing agent. Wastewater treatment odor control and bacteria activity inhibitor.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

Exposure Controls

Appropriate Engineering Controls: Proper grounding procedures to avoid static electricity should be followed. Ensure adequate ventillation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid creating or spreading dust. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Consumer Exposure Controls: Do not eat, drink, or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	:	Solid
Appearance	:	Pale straw-colored
Odor	:	Odorless
Odor Threshold	:	Not available
pH	:	9 (for aqueous solution)
Melting Point	:	271.1 °C (520 °F)
Freezing Point	:	Not applicable
Boiling Point	:	Not available
Flash Point	:	Not flammable
Auto-ignition Temperature	:	Not applicable
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not flammable
Lower Flammable Limit	:	Not applicable
Upper Flammable Limit	:	Not applicable
Vapor Pressure	:	Not available
Relative Vapor Density at 20 °C	:	Not available
Specific Gravity	:	2.168

Solubility	:	Not available
Partition Coefficient: N-octanol/water	:	Not available
Viscosity	:	Not available
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	:	Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: The mixture contains an oxidizer which reacts with combustibles and reducing agents.

Chemical Stability: May intensify fire; oxidizer.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Overheating. Open flame. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Reducing agents. Ammonium salts. Amines.

Hazardous Decomposition Products: Nitrogen oxides. Nitrogen compounds. Sodium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Toxic if swallowed.

LD50 and LC50 Data:

Sodium Nitrite: Crystal Reagent ACS, High Purity Flake, High Purity Granular, High Purity Special Granular, Granular Free-Flowing Food Grade, Granular Free-Flowing Technical Grade	
ATE US (oral)	181.82 mg/kg body weight

Skin Corrosion/Irritation: Not classified **pH:** 9

Serious Eye Damage/Irritation: Causes serious eye irritation. **pH:** 9

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Potential Adverse Human Health Effects and Symptoms: Toxic if swallowed.

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: May cause skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation.

Symptoms/Injuries After Ingestion: Toxic if swallowed.

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Sodium nitrite (7632-00-0)	
LD50 Oral Rat	180 mg/kg
LC50 Inhalation Rat (mg/l)	5.5 mg/l/4h

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Sodium nitrite (7632-00-0)	
LC50 Fish 1	0.19 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

LC 50 Fish 2	0.092 - 0.13 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

Persistence and Degradability

Sodium Nitrite: Crystal Reagent ACS, High Purity Flake, High Purity Granular, High Purity Special Granular, Granular Free-Flowing Food Grade, Granular Free-Flowing Technical Grade	
Persistence and Degradability	Not established.

Bioaccumulative Potential

Sodium Nitrite: Crystal Reagent ACS, High Purity Flake, High Purity Granular, High Purity Special Granular, Granular Free-Flowing Food Grade, Granular Free-Flowing Technical Grade	
Bioaccumulative Potential	Not established.

Sodium nitrite (7632-00-0)	
Log Pow	-3.7 (at 25 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Sewage Disposal Recommendations: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Hazardous waste due to potential risk of explosion.

Ecology – Waste Materials: Hazardous waste due to toxicity.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : SODIUM NITRITE
Hazard Class : 5.1
Identification Number : UN1500
Label Codes : 5.1,6.1
Packing Group : III
Marine Pollutant : Marine pollutant
ERG Number : 140

14.2 In Accordance with IMDG

Proper Shipping Name : SODIUM NITRITE
Hazard Class : 5.1
Identification Number : UN1500
Packing Group : III
Label Codes : 5.1,6.1
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-Q
Marine pollutant : Marine pollutant
MFAG Number : 140

14.3 In Accordance with IATA

Proper Shipping Name : SODIUM NITRITE
Packing Group : III
Identification Number : UN1500
Hazard Class : 5.1
Label Codes : 5.1,6.1
ERG Code (IATA) : 5P

14.4 In Accordance with TDG

Proper Shipping Name	:	SODIUM NITRITE
Packing Group	:	III
Hazard Class	:	5.1
Identification Number	:	UN1500
Label Codes	:	5.1,6.1
Marine Pollutant (TDG)	:	Marine pollutant

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Sodium Nitrite: Crystal Reagent ACS, High Purity Flake, High Purity Granular, High Purity Special Granular, Granular Free-Flowing Food Grade, Granular Free-Flowing Technical Grade	
SARA Section 311/312 Hazard Classes	Fire hazard Reactive hazard Immediate (acute) health hazard

Sodium nitrite (7632-00-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313	
EPA TSCA Regulatory Flag	S - S - indicates a substance that is identified in a proposed or final Significant New Uses Rule.
SARA Section 311/312 Hazard Classes	Reactive hazard Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	1.0 %

US State Regulations

Sodium nitrite (7632-00-0)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

Sodium Nitrite: Crystal Reagent ACS, High Purity Flake, High Purity Granular, High Purity Special Granular, Granular Free-Flowing Food Grade, Granular Free-Flowing Technical Grade	
WHMIS Classification	Class C - Oxidizing Material Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Sodium nitrite (7632-00-0)	
Listed on the Canadian DSL (Domestic Sustances List) Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 05/05/15

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Ox. Sol. 2	Oxidizing solids Category 2
H272	May intensify fire; oxidizer
H301	Toxic if swallowed
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Party Responsible for the Preparation of This Document

Global Chemical Resources

(419) 242-1004

Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA'S "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and GCR *and its affiliates assume no responsibility.*

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Chemtrade North America SDS Template